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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,348	12/03/2003	Marion Calmer	USPA0035	4001

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EXAMINER

TORRES, ALICIA M

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/726,348

Applicant(s)

CALMER, MARION

Examiner

Alicia M Torres

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

*Specification*

1. The disclosure is objected to because of the following informalities: Page 9, line 27, “there” should be changed to –their—;

Page 11, line 19, “Figures” should be changed to –Figure—;

Page 11, line 20, “the flutes on the stalk rolls 180” should be changed to –the flutes 180 on the stalk rolls—.

Appropriate correction is required.

*Drawings*

2. The drawings are objected to because there are no lead lines from reference numbers 130 in Figure 10. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claim 1 is objected to because of the following informalities:

“compromising” in line 1 should be changed to –comprising–;  
there is lack of antecedent basis for “the stripper plates” in the last line. Appropriate correction is required.

Claim 11 is objected to because of the following informalities: “compromising” in line 1 should be changed to –comprising–. Appropriate correction is required.

Claim 22 is objected to because of the following informalities: “compromising” in line 1 should be changed to –comprising–. Appropriate correction is required.

### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Pucher.

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6. In regards to claim 1-10, Pucher discloses a corn head row unit wherein the following method is inherent, the method comprising the steps of:

- a. engaging the corn plant (19) with a plurality of stalk rolls (45),
- b. pinching the corn plant (19) between said stalk rolls (45),
- c. pulling the corn plant stalk (19) down with said stalk rolls (45),
- d. separating said ear of corn from the corn plant stalk (19),
- e. engaging said ear of corn (19) with at least one gathering chain paddle (42),
- f. having the speed of said stalk rolls (45) and gathering chain paddles (42) fixed during operation;
- g. wherein the maximum velocity of said gathering chain paddle (42) creates minimal stalk shear; and,
- h. wherein the maximum ear separation substantially vertical velocity creates minimal damage to the ear of corn upon impact with the stripper plates (96), as per claim 1.

7. In regards to claims 2-10, Pucher discloses an improved arrangement of a corn head row unit comprising:

- a. a source of power (not shown) for rotation,
- b. at least one stalk roll (45) for engagement with a corn plant stalk (19),
- c. said stalk roll (45) having at least one flute,
- d. a stripper plate (96),
- e. at least one gathering chain (41) having paddles (42),

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f. a gearbox (50) fixing the speed of said gathering chain paddles (42) and said stalk roll flute (45) during operation,

g. wherein the gearbox ratio is selected to create minimal stalk shear; and,

h. wherein the resulting maximum ear separation velocity creates minimal damage to the ear of corn (19) upon impact with the stripper plate (96), as per claim 2; and

two opposing stalk rolls (45) for engagement with a corn plant stalk (19), as per claim 3; and

wherein said stalk rolls (45) have an enlarged length to minimize stalk shear, as per claim 4; and

wherein said gathering chain (41) drive sprocket size has been reduced to minimize stalk shear, as per claim 5; and

wherein said stalk roll (45) diameter has been increased to minimize stalk shear, as per claim 6; and

wherein said stalk rolls (45) have an enlarged length to minimize stalk shear, as per claim 7; and

wherein said gathering chain (42) drive sprocket size has been reduced to minimize stalk shear, as per claim 8; and

wherein said stalk roll (45) diameter has been increased to minimize stalk shear, as per claim 9; and

wherein said row unit (30) has a shear point with a rounded edge, as per claim 10.

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8. In regards to claim 11, Pucher discloses a corn head row unit wherein the following method is inherent, the method comprising the steps of:

- a. engaging the corn plant (19) with a plurality of rotational elements (45),
- b. pinching the corn plant (19) between said rotational elements (45),
- c. pulling the corn plant stalk (19) down with said rotational elements (45),
- d. separating said ear of corn (19) from the corn plant stalk,
- e. engaging said ear of corn with at least one horizontal element (42),
- f. said horizontal element (42) substantially moving only ears of corn for collection and further processing within the threshing unit of a combine (10),
- g. wherein the velocity of said horizontal element (42) minimizes the occurrence of corn plant stalk separation due to corn plant stalk movement restrictions created by said rotational (45) and horizontal elements (42); and,
- h. wherein the speed of said rotational (45) and horizontal (42) elements is fixed during operation, as per claim 11.

9. In regards to claims 12-21, Pucher discloses an improved arrangement of a corn head row unit comprising:

- a. a source of power (not shown) for rotation,
- b. at least one stalk roll (45) for engagement with a corn plant stalk (19),
- c. said stalk roll (45) having at least one flute,
- d. a stripper plate (96),
- e. at least one gathering chain (41) having paddles (42),

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f. a gearbox (50) fixing the speed of said gathering chain paddles (42) and said stalk roll flute (45) during operation,

g. wherein the gearbox ratio is selected to produce a gathering chain paddle velocity which minimizes the occurrence of corn plant stalk separation due to corn plant stalk movement restrictions created by said stalk rolls (45) and gathering chain paddles (42); and,

h. wherein the resulting maximum ear separation velocity creates minimal damage to the ear of corn (19) upon impact with the stripper plates (96), as per claim 12; and

two opposing stalk rolls (45) for engagement with a corn plant stalk (19), as per claim 13; and

wherein said stalk rolls (45) have an enlarged length to minimize stalk shear, as per claim 14; and

wherein said gathering chain (41) drive sprocket size has been reduced to minimize stalk shear, as per claim 15; and

wherein said stalk roll (45) diameter has been increased to minimize stalk shear, as per claim 16; and

wherein said stalk rolls (45) have an enlarged length to minimize stalk shear, as per claim 17; and

wherein said gathering chain (42) drive sprocket size has been reduced to minimize stalk shear, as per claim 18; and

wherein said stalk roll (45) diameter has been increased to minimize stalk shear, as per claim 19; and

wherein said row unit (30) has a shear point with a rounded edge, as per claim 20; and



wherein the shear point is removable allowing for replacement, as per claim 21.

10. In regards to claim 22, Pucher discloses an improved arrangement of a corn head row unit comprising:

- a. means for engaging a corn plant with a plurality of rotational elements (45),
- b. means for pinching a corn plant between said rotational elements (45),
- c. means for pulling the corn plant stalk down with said rotational elements (45),
- d. means for separating the corn plant ear from the corn plant stalk,
- e. wherein the maximum ear velocity allowed creates minimal damage to the ear of corn upon impact with said separation means (45),
- f. means (42) for engaging an ear of corn for horizontal movement to an ear collection means and further processing within the threshing unit of a combine (10),
- g. wherein the maximum velocity of said means (42) for engaging an ear of corn for horizontal movement creates minimal stalk shear; and
- h. a power source (not shown) for said engaging, pinching, pulling and horizontal movement means wherein the speed of said means is fixed during operation.

### ***Conclusion***

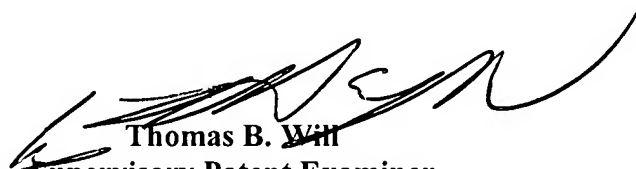
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Spry, Sammann et al., and Sutton have been cited as of interest.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Torres whose telephone number is 703-305-6953. The examiner can normally be reached Monday through Thursday from 7:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at 703-308-3870.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is 703-305-1113. The fax number for this Group is 703-872-9306.



Thomas B. Will  
Supervisory Patent Examiner  
Group Art Unit 3671

AMT  
February 21, 2005